AMENDMENTS TO THE CLAIMS

Amendments to the claims are reflected below in the **Listing of Claims**, which replaces all prior versions, and listings, of claims in this application.

Listing of Claims

1. (Currently Amended) A computer system having a memory for providing streaming media in one of a plurality of streaming media protocols ~~includes~~, the computer system comprising:

a first plurality of interfaces configured to initiate reading of packet meta-data and packets of payload data from a memory; and

a second plurality of interfaces configured to output streaming media packets to a client system at a requested pace, wherein the streaming media packets comprise the packet meta-data and the packets of payload data, and are determined in response to a streaming media protocol requested by the client system;

wherein the packet meta-data and the packets of payload data are read from the memory at a pace independent of the requested pace for the streaming media packets, and

wherein the second plurality of interfaces ~~support~~ supports more than one streaming media protocol.

2. (Original) The computer system of claim 1 further comprising:

a third plurality of interfaces configured to receive the packet meta-data, configured to adjust the packet meta-data to form adjusted packet meta-data, and to output the adjusted packet meta-data;

wherein the streaming media packets are also determined in response to the adjusted packet meta-data.

3. (Original) The computer system of claim 1 wherein the streaming media protocol requested is selected from the group: Microsoft Media Streaming, Real Time Streaming Protocol, RealNetworks RealSystem.

4. (Original) The computer system of claim 1 wherein the second plurality of interfaces are configured to output a streaming media packet at a requested time.

5. (Original) The computer system of claim 1 wherein the second plurality of interfaces outputs streaming media packets to the client system after packet meta-data and packets of payload data are read from the memory.

6. (Original) The packet pacer of claim 1 wherein sizes of streaming media system depend upon the streaming media protocol.

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Currently Amended) A method of outputting streaming media data in a streaming media format from a streaming media cache ~~includes~~, the method comprising:

retrieving a first data object from a disk memory, the first data object including a first plurality of packet payloads; thereafter

sending a first stream of media packets to a client at specified packet delivery times, wherein the media packets from the first stream of media packets [[comprises]]comprise packet payloads from the first plurality of packet payloads and are formatted in accordance with a streaming media protocol requested by the client;

retrieving a second data object from the disk memory, the second data object including a second plurality of packet payloads; and

wherein sending the first stream of media packets to the client and retrieving the second data object from the disk memory ~~may~~ occur in parallel.

15. (Currently Amended) The method of claim 14 wherein the first data object[[s]] also includes a first plurality of packet meta-data; and

wherein the specified delivery times are determined by modified packet meta-data, the modified packet meta-data determined in response to respective packet meta-data and to the streaming media ~~format~~protocol requested by the client.

16. (Original) The method of claim 14 wherein retrieving the second data object comprises initiating retrieval of the second data object from the disk memory after a threshold number of media packets from the first stream of media packets have been sent to the client.

17. (Original) The method of claim 16 wherein initiating retrieval of the second data object from the disk memory comprises requesting a stream of media packets from an upstream server.

18. (Original) The method of claim 17 wherein initiating retrieval of the second data object from the disk memory further comprises receiving the stream of media packets and storing the stream of media packets as the second data object in the disk memory.

19. (Original) The method of claim 14 wherein a size of the media packets in the first stream of media packets is determined in response to the streaming media ~~format~~protocol requested by the client.

20. (Currently Amended) The method of claim 14 further comprising:

waiting until the second data object is retrieved from the disk memory; and thereafter

sending a second stream of media packets to the client at specified packet delivery times, wherein the media packets from the second stream of media packets [[comprises]]comprise packet payloads from the second plurality of packet payloads.

21. (Currently Amended) A multiprotocol streaming apparatus coupled to a client system ~~includes~~, the apparatus comprising:

a first portion configured to initiate retrieval of a first plurality of media data from a disk memory and to initiate retrieval of a second plurality of media data from the disk memory; and

a second portion coupled to the first portion configured to output a first media data stream in a requested streaming media protocol at a specified stream rate to [[a]]the client system, wherein the first media data stream is determined in response to the first plurality of media data,

wherein the first portion initiates retrieval of the second plurality of media data while the second portion outputs the first media data stream to the client system.

22. (Original) The apparatus of claim 21 wherein the first portion is also configured to direct storage of the first plurality of media data into a local memory after the first plurality of media data are retrieved from the disk memory, and

wherein the second portion is also configured to retrieve at least a subset of the first plurality of media data from the local memory.

23. (Original) The apparatus of claim 21 wherein the first portion is also configured to determine whether the second plurality of media data are stored in the disk memory.

24. (Original) The apparatus of claim 23 further comprising:

a third portion coupled to the first portion configured to request a second media data stream from an upstream streaming apparatus, and configured to receive the second media data stream;

wherein the first portion is also configured to direct storage of the second plurality of media data in the disk memory, wherein the second plurality of media data are determined in response to the second media data stream; and

wherein the third portion requests the second media data stream from the upstream streaming apparatus when the first portion initially determines that the second plurality of media data are not stored in the disk memory.

25. (Original) The apparatus of claim 24 further comprising a fourth portion coupled to the second portion configured to retime media data from the first plurality of media data to form a first plurality of re-timed media data according to the requested streaming media protocol;

wherein the second portion is also configured to retrieve at least a portion of the first plurality of media data and configured to combine the first plurality of re-timed media data and the portion of the first plurality of media data to form the first media data stream.

26. (Original) The apparatus of claim 24 wherein the third portion comprises at least a portion of a streaming media client selected from the group: Microsoft Media Player, RealNetworks RealPlayer, Apple Quicktime.

27. (Original) The apparatus of claim 21 wherein the requested streaming media protocol is selected from the group including: Microsoft Media Streaming, Real Time Streaming Protocol, RealNetworks RealSystem.

28. (Original) The apparatus of claim 27 further comprising:

a third portion coupled to the first portion configured to request a third media data stream from an upstream streaming apparatus, and configured to receive the third media data stream;

wherein the first portion is also configured to determine whether the first plurality of media data are stored in the disk memory, configured to direct storage of the first plurality of media data in the disk memory, and wherein the first plurality of media data are determined in response to the third media data stream, and

wherein the third portion requests the third media data stream from the upstream streaming apparatus when the first portion initially determines that the first plurality of media data are not stored in the disk memory.

29. (Original) The apparatus of claim 28 wherein the second portion begins output of the first media data stream only after the first plurality of media data are stored in the disk memory.

30. (Original) The apparatus of claim 28 wherein the second portion begins output of the first media data stream before the first plurality of media data are stored in the disk memory.

31. (New) A machine-readable set of instructions which, when executed by a machine, cause the machine to:

initiate reading of data chunks from a memory, and indicate when data chunks have been read from the memory, the data chunks including packet payloads and packet meta-data;

initiate reading of a first data object meta-data from the memory, determine if object meta-data for a second data object is stored in the memory, initiate retrieving data from an upstream server for storage as the second data object when the second data object is not stored in the memory, and indicate when the second data object has been retrieved, wherein data objects comprise a plurality of data chunks; and

output streaming media packets to a client via a network, the streaming media packets determined in response to packet payloads and packet meta-data;

wherein the streaming media packets are output while the second data chunk is read from the memory.

32. (New) The machine-readable instructions of claim 31 including further instructions that, when executed by the machine, cause the machine to output streaming media packets including packet payloads from a first data chunk while the second data object is being retrieved from the upstream server.

33. (New) The machine-readable instructions of claim 31 including further instructions that, when executed by the machine, cause the machine to select an upstream server from the group: origin server, another streaming media cache.

34. (New) The machine-readable instructions of claim 31 including further instructions that, when executed by the machine, cause the machine to receive packet meta-data and adjust packet timing of the packet meta-data.

35. (New) The machine-readable instructions of claim 31 including further instructions that, when executed by the machine, cause the machine to receive the data from the upstream server and to initiate storage of the data in the memory as the second data object.

36. (New) The machine-readable instructions of claim 31 including further instructions that, when executed by the machine, cause the machine to format streaming media packets in a format consistent with a protocol selected from the group: Microsoft Media Streaming, Real Time Streaming Protocol, RealNetworks RealSystem.